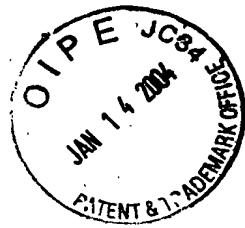


# FIG. 1

TGF $\beta$ +MMP+ifn  $\beta$  Sequence

10	20	30	40	50	60
1234567890	1234567890	1234567890	1234567890	1234567890	1234567890
ATGCCGCCCT	CCGGGCTGCG	GCTGCTGCCG	CTGCTGCTAC	CGCTGCTGTG	GCTACTGGTG
MetProProSer	GlyLeuAr	gLeuLeuPro	LeuLeuLeuP	roLeuLeuTr	pLeuLeuVal
60					
CTGACGCCCTG	GCCCCGCCGGC	CGCGGGACTA	TCCACCTGCA	AGACTATCGA	CATGGAGCTG
LeuThrProGly	ProProAla	aAlaGlyLeu	SerThrCysLys	ThrIleAsp	pMetGluLeu
120					
GTGAAGCGGA	AGCGCATCGA	GGCCATCCGC	GGCCAGATCC	TGTCCAAGCT	GCGGCTCGCC
ValLysArgLys	ArgIleGly	uAlaIleArg	GlyGlnIleLys	euSerLysLe	uArgLeuAla
180					
AGCCCCCCCAGA	GCCAGGGGGA	GGTGCCGCC	GGCCCGCTGC	CCGAGGCCGT	GCTCGCCCTG
SerProProSer	GlnGlyGly	uValProPro	GlyProLeuPro	roGluAlaVal	lLeuAlaLeu
240					
TACAACAGCA	CCCGCGACCG	GGTGGCCGGG	GAGAGTGCAG	AACCGGAGCC	CGAGCCTGAG
TyrAsnSerThr	ArgAspAr	gValAlaGly	GluSerAlaGlu	ProGluPr	oGluProGlu
300					
GCCGACTACT	ACGCCAACAGA	GGTCACCCGC	GTGCTAATGG	TGGAAACCCA	CAACGAAATC
AlaAspTyrTyr	AlaLysGly	uValThrArg	ValLeuMetVal	lGluThrHis	sAsnGluIle
360					
TATGACAAGT	TCAAGCAGAG	TACACACAGC	ATATATATGT	TCTTCAACAC	ATCAGAGCTC
TyrAspLysPhenyl	LysGlnSer	rThrHisSer	IleTyrMetPhenyl	hePheAsnThreonine	rSerGluLeu
420					
CGAGAACCGG	TACCTGAACC	CGTGTGCTC	TCCCGGGCAG	AGCTGCGTCT	GCTGAGGAGG
ArgGluAlaVal	ProGluPro	oValLeuLeu	SerArgAlaGlu	lLeuArgLeu	uLeuArgArg
480					
CTCAAGTTAA	AAAGTGGAGCA	GCACGTGGAG	CTGTACCAGA	AATACAGCAA	CAATTCTGG
LeuLysLeuLys	ValGluGly	nHisValGlu	LeuTyrGlnLys	TyrSerAsparagine	nAsnSerTrp
540					
CGATAACCTCA	GCAACCGGCT	GCTGGCACCC	AGCGACTCGC	CAGAGTGGTT	ATCTTTTGAT
ArgTyrLeuSer	AsnArgLeu	uLeuAlaPro	SerAspSerPhenyl	roGluTrpLeucine	uSerPheAsp
600					
GTCACCGGAG	TTGTGCGGCA	GTGGTTGAGC	CGTGGAGGGG	AAATTGAGGG	CTTCGCCTT
ValThrGlyVal	ValArgGly	nTrpLeuSer	ArgGlyGlyGlu	IleGluGly	yPheArgLeu
660					
AGCGCCCACT	GCTCCTGTGA	CAGCAGGGAT	AACACACTGC	AAAGTGGACAT	CAACGGGTTCA
SerAlaHisCys	SerCysAsparagine	pSerArgAsp	AsnThrLeuGlu	InValAspIle	eAsnGlyPhe
720					
ACTACCGGCC	GCCGAGGTGA	CCTGGCCACC	ATTCACTGGCA	TGAACCGGCC	TTTCCTGCTT
ThrThrGlyArg	ArgGlyAsparagine	pLeuAlaThr	IleHisGlyMet	AsnArgPro	oPheLeuLeu
780					
CTCATGGCCA	CCCCGCTGGA	GAGGGCCCAAG	CATCTGCAAA	GCGAATTCTGG	GGAGGCCGA
LeuMetAlaThr	ProLeuGly	uArgAlaGln	HisLeuGlnSer	GluPheGly	yGlyGlyGly
840					
TCCCCGCTCG	GGCTTGGGC	GGGAGGGGGC	TCAGCGGCCG	CAATCAACTA	TAAGCAGCTC
SerProLeuGly	LeuTrpAla	aGlyGlyGly	SerAlaAlaAla	IleAsnTyrosine	rLysGlnLeu
900					
CAGCTCCAAG	AAAGGACGAA	CATTCGGAAA	TGTCAGGAGC	TCCTGGAGCA	GCTGAATGGAA
GlnLeuGlnGlu	ArgThrAsparagine	nIleArgLys	CysGlnGluLys	euLeuGluGly	nLeuAsnGly
960					

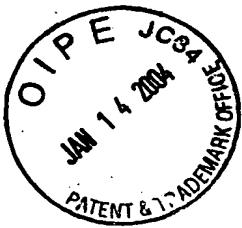


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Appl. No. 09/756,283; Filed: January 9, 2001  
Dkt. No. 0623.1000000/LBB/PAJ; Group Art Unit: 1646  
Inventor(s): Chernajovsky *et al.*; Tel: 202/371-2600  
Title: Latent Fusion Protein

AAGATCAACC TCACCTACAG GGCGGACTTC AAGATCCCTA TGGAGATGAC GGAGAAGATG LysIleAsnL euThrTyrAr gAlaAspPhe LysIleProM etGluMetTh rGluLysMet	1020
CAGAACAGAGTT ACAC TGCCATCCAA GAGATGCTCC AGAATGTCTT TCTTGTCCTC GlnLysSerT yrThrAlaPh eAlaIleGln GluMetLeuG lnAsnValPh eLeuValPhe	1080
AGAAACAAATT TCTCCAGCAC TGGGTGGAAT GAGACTATTG TTGTACGTCT CCTGGATGAA ArgAsnAsnP heSerSerTh rGlyTrpAsn GluThrIleV alValArgLe uLeuAspGlu	1140
CTCCACCAGC AGACAGTGTT TCTGAAGACA GTACTAGAGG AAAAGCAAGA GGAAAGATTG LeuHisGlnG lnThrValPh eLeuLysThr ValLeuGluG luLysGlnGl uGluArgLeu	1200
ACGTGGGAGA TGTCCTCAAC TGCTCTCCAC TTGAAGAGCT ATTACTGGAG GGTGCAAAGG ThrTrpGluM etSerSerTh rAlaLeuHis LeuLysSerT yrTyrTrpAr gValGlnArg	1260
TACCTTAAAC TCATGAAGTA CAACAGCTAC GCCTGGATGG TGGTCCGAGC AGAGATCTTC TyrLeuLysL euMetLysTy rAsnSerTyr AlaTrpMetV alValArgAl aGluIlePhe	1320
AGGAACCTTC TCATCATTG AAGACTTACC AGAAACATTCC AAAACTGATC TAGACC ArgAsnPheL euIleIleAr gArgLeuThr ArgAsnPheG lnAsn***Se rArg uga	1376

FIG. 1 CONT'D



## FIG. 2

ifn+MMP+TGFb Sequence

10	20	30	40	50	60
1234567890	1234567890	1234567890	1234567890	1234567890	1234567890
ATGAACAAQCA	GGTGGATCCT	CCACGCTGCG	TTCCTGCTGT	GCTTCTCCAC	CACAGCCCTG
MetAsnAsnA	rgTrpIleLe	uHisAlaAla	PheLeuLeuC	ysPheSerTh	rThrAlaLeu
TCCATCAACT	ATAAGCAGCT	CCAGCTCCAA	GAAAGGACGA	ACATTGGAA	ATGTCAGGAG
SerIleAsnT	yrLysGlnLe	uGlnLeuGln	GluArgThrA	snIleArgLy	sCysGlnGlu
CTCCTGGAGC	AGCTGAATGG	AAAGATCAAC	CTCACCTACA	GGGC GGACTT	CAAGATCCCT
LeuLeuGluG	lnLeuAsnG1	yLysIleAsn	LeuThrTyrA	rgAlaAspPh	eLysIlePro
ATGGAGATGA	CGGAGAAGAT	GCAGAAGAGT	TACACTGCCT	TTGCCATCCA	AGAGATGCTC
MetGluMetT	hrGluLysMe	tGlnLysSer	TyrThrAlaP	heAlaIleG1	nGluMetLeu
CAGAACATGTCT	TTCTTGCTCT	CAGAAACAAAT	TTCTCCAGCA	CTGGGTGGAA	TGAGACTATT
GlnAsnValP	heLeuValPh	eArgAsnAsn	PheSerSerT	hrGlyTrpAs	nGluThrIle
GTTGTACGTC	TCCTGGATGA	ACTCCACCAG	CAGACAGTGT	TTCTGAAGAC	AGTACTAGAG
ValValArgL	euLeuAspG1	uLeuHisGln	GlnThrValP	heLeuLysTh	rValLeuGlu
GAAAAGCAAG	AGGAAAGATT	GACGTGGGAG	ATGTCCTCAA	CTGCTCTCCA	CTTGAAGAGC
GluLysGlnG	luGluArgLe	uThrTrpGlu	MetSerSerT	hrAlaLeuHi	SleuLysSer
TATTACTGGA	GGGTGCAAAG	GTACCTTAAA	CTCATGAAGT	ACAACAGCTA	CGCCTGGATG
TyrTyrTrpA	rgValGlnAr	gTyrLeuLys	LeuMetLysT	yrAsnSerTy	rAlaTrpMet
GTGGTCCGAG	CAGAGATCTT	CAGGAACCTT	CTCATCATTC	GAAGACTTAC	CAGAAACTTC
ValValArgA	laGluIlePh	eArgAsnPhe	LeuIleIleA	rgArgLeuTh	rArgAsnPhe
CAAAACGAAT	T <u>CGGGGGAGG</u>	CGGATCCCCG	CTCGGGCTTT	GGGC GGGAGG	GGGCTCA <u>GGCG</u>
GlnAsnGluP	heGlyGlyG1	yGlySerPro	LeuGlyLeuT	rpAlaGlyG1	yGlySerAla
GCCGCACATAT	CCACCTGCAA	GACTATCGAC	ATGGAGCTGG	TGAAGCGGAA	GCGCATCGAG
AlaAlaLeuS	erThrCysLy	sThrIleAsp	MetGluLeuV	alLysArgLy	sArgIleGlu
GCCATCCGCG	GCCAGATCCT	GTCCAAGCTG	CGGCTCGCCA	GCCCCCCCAG	CCAGGGGGAG
AlaIleArgG	lyGlnIleLe	uSerLysLeu	ArgLeuSlaS	erProProSe	rGlnGlyGlu
GTGCCGCCG	GCCCCGCTGCC	CGAGGCCGTG	CTCGCCCTGT	ACAACAGCAC	CCGCGACCAG
ValProProG	lyProLeuPr	OGluAlaVal	LeuAlaLeuT	yrASnSerTh	rArgAspArg
GTGGCCGGGG	AGAGTGCAGA	ACCGGAGCCC	GAGCCTGAGG	CCGACTACTA	CGCCAAGGAG
ValAlaGlyG	luSerAlaG1	uProGluPro	GluProGluA	laAspTyrTy	rAlaLysGlu
GTCACCCGCG	TGCTAATGGT	GGAAACCCAC	AACGAAATCT	ATGACAAGTT	CAAGCAGAGT
ValThrArgV	alLeuMetVa	lGluThrHis	AsnGluIleT	yrAspLysPh	eLysGlnSer
ACACACAGCA	TATATATGTT	CTTCAACACA	TCAGAGCTCC	GAGAAGCGGT	ACCTGAACCC
ThrHisSerI	leTyrMetPh	ePheAsnThr	SerGluLeuA	rgGluAlaVa	lProGluPro

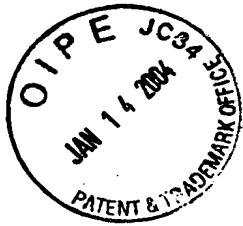


## Sheet 4 of 15

Appl. No. 09/756,283; Filed: January 9, 2001  
Dkt. No. 0623.1000000/LBB/PAJ; Group Art Unit: 1646  
Inventor(s): Chernajovsky *et al.*; Tel: 202/371-2600  
Title: Latent Fusion Protein

GTGTTGCTCT CCCGGGCACA GCTGCGTCTG CTGAGGGAGGC TCAAGTTAAA AGTGGAGCAG	1020
ValLeuLeuSerArgAlaGluLeuArgLeuLeuArgArgLeuLysLeuLysValGluGln	
CACGTGGAGC TGTACCAGAA ATACAGCAAC AATTCCCTGGC GATACTCTAG CAACCGGCTG	1080
HisValGluLeuTyrGlnLeuSerAsnAsnSerTrpAArgTyrLeuSerAsnArgLeu	
CTGGCACCCA GCGACTCGCC AGAGTGGTTA TCTTTGATG TCACCGGAGT TGTGCGGCAG	1140
LeuAlaProSerAspSerProGluTrpLeuSerPheAspValThrGlyValValArgGln	
TGGTTGAGCC GTGGAGGGGA AATTGAGGGC TTTGCCCTTA GCGCCCCTG CTCCTGTGAC	1200
TrpLeuSerArgGlyGlyGluLeuPheArgLeuSerAlaHisCysSerCysAsp	
AGCAGGGATA ACACACTGCA AGTGGACATC AACGGGTTCA CTACCGGCCG CCGAGGTGAC	1260
SerArgAspSerThrLeuGlyValAspIleAsnGlyPheThrThrGlyArgGlyAsp	
CTGGCCACCA TTCATGGCAT GAACCGGCCT TTCTGCTTC TCATGGCCAC CCCGCTGGAG	1320
LeuAlaThrIsoleHisGlyMeAsnArgProPheLeuLeuLeuMetAlaThrProLeuGlu	
AGGGCCCAGC ATCTGCAAAG GtgaTCTAGA CC	1352
ArgAlaGlnHistLeuGlnSer...SerArg	

**FIG. 2** CONT'D



# FIG. 3

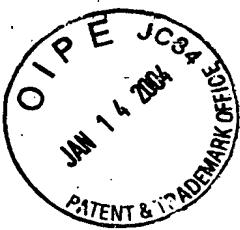
Hu TGF- $\beta$ 1	MPPSGLRLPLLLPLLIWLLV-LTPGPPAAGLSTCKTIOMEILVKRKRIEAIRGQILSKLRIASPPSQGE-VP-PGP	40	
Hu TGF- $\beta$ 2	MHYCVLSAFLILH LVTVAL-----SLSTCSTLDMQFMRKRIEAIRGQILSKLKLTSPP--EDYPEPEE		
Hu TGF- $\beta$ 3	MKMHQRALVVLALLHFATVSL-----SLSTCTTDFGHIKKKRVEAIRGQILSKLKLTSPP--EPTV-MTH		
Ck TGF- $\beta$ 4	-----		
Fg TGF- $\beta$ 5	MEV-----LWMLLIVLLV-LHSSLANSLSLSTCKAVADMEEVRKRRRIEAIRGQILSKLKLTKDIPDVDS-EK-MTV		
	+	+	+
	+	+	+++*
	+	+	+++++
	+	+	++++++
	+	+	+
			100
			120
Hu TGF- $\beta$ 1	LPEAVLALYNSTRDRVAGESAEPPEP-----EADYYAKEVIRVLMV----ETHNEIYDKFKQSTHSIYMF	20	
Hu TGF- $\beta$ 2	VPPEVISIYNNSTRDLL--QEKAASR-RAAACERERSOEEYYAKEVYKIDMMPFEFPSENAPIPTFYRPy-FRIVRE		
Hu TGF- $\beta$ 3	VPYQVLALYNSTRRELL--EEHGER-KEEGCTQENTSEYYAYAKEIHKFMDIQGLAE-HNELAVCPKGIT-SKVFRF		
Ck TGF- $\beta$ 4	-----M--DPMSIGPK--SCG-----GSPW-RPP-GTAPWSIG-SR--RA		
Fg TGF- $\beta$ 5	PSEAIFF-LYNSTLE-VIREKATRE-EEEHVGHDONIQDYYAKQVYRF----ESITELEDHEFKFKF-----F		
	+++		
			140
			160
Hu TGF- $\beta$ 1	NTSEL-----RE-AVPEPVLLS-RAELRLRLKL-----KV-EQHVELYQ-----KYSNNSWRYLNSNRLIAPS DSPE	180	
Hu TGF- $\beta$ 2	DVSA-----MEKNASNLY-KAEFRVFRQLQNPK-ARVPEQRIELYQILKSRLDISPTQRYIDSKVVKTRAEGE		
Hu TGF- $\beta$ 3	NVSS-----VEKNRNTNLF-RAEFRVLRVPNPS-SKRNEQRIELFQILRP-DEHIAKQRYIGGKNLPTRGTAE		
Ck TGF- $\beta$ 4	TASSSCSTSRRVRAEVGGRAILHRAELRHLRQKAADSAGTEQRLELYQGYG-----NASWRYLHGRSVRATA DDE		
Fg TGF- $\beta$ 5	NASHV-----RENVGMN-SLLH-HAELRMYK-KQTD--KNMOORMELEW--KYQENGTHSRYLESKYITPVTDQE		
	+	++	++
			+
			++



Sheet 6 of 15

Appl. No. 09/756,283; Filed: January 9, 2001  
Dkt. No. 0623.100000/LBB/PAJ; Group Art Unit: 1648  
Inventor(s): Chernajovsky *et al.*; Tel: 202/371-2600  
Title: Latent Fusion Protein

FIG. 3 CONT'D



## FIG. 4

Protein	Sequence	Reference
MMP-1/MMP-8		
Human type I collagen ( $\alpha_1$ )	Ala-Pro-Gln-Gly <sub>775</sub> ~Ile <sub>776</sub> -Ala-Gly-Gln	80
Human type I collagen ( $\alpha_2$ )	Gly-Pro-Gln-Gly <sub>775</sub> ~Leu <sub>776</sub> -Leu-Gly-Ala	80
Human type II collagen	Gly-Pro-Gln-Gly <sub>775</sub> ~Leu <sub>776</sub> -Ala-Gly-Gln	80
Human type III collagen	Gly-Pro-Leu-Gly <sub>775</sub> ~Ile <sub>776</sub> -Ala-Gly-Ile	80
Human $\alpha_2$ -macroglobulin	Gly-Pro-Glu-Gly <sub>679</sub> ~Leu <sub>680</sub> -Arg-Val-Gly	84
Rat $\alpha_2$ -macroglobulin	Ala-Ala-Tyr-His <sub>681</sub> ~Leu <sub>682</sub> -Val-Ser-Gin	84
Rat $\alpha_2$ -macroglobulin	Met-Asp-Ala-Phe <sub>691</sub> ~Leu <sub>692</sub> -Glu-Ser-Ser	84
Rat $\alpha_1$ -macroglobulin	Glu-Pro-Gln-Ala <sub>683</sub> ~Leu <sub>684</sub> -Ala-Met-Ser	84
Rat $\alpha_1$ -macroglobulin	Gln-Ala-Leu-Ala <sub>685</sub> ~Met <sub>686</sub> -Ser-Ala-Ile	84
Chicken ovostatin	Pro-Ser-Tyr-Phe <sub>673</sub> ~Leu <sub>674</sub> -Asn-Ala-Gly	79
Human pregnancy zone protein	Tyr-Glu-Ala-Gly <sub>685</sub> ~Leu <sub>686</sub> -Gly-Val-Val	84
Human pregnancy zone protein	Ala-Gly-Leu-Gly <sub>687</sub> ~Val <sub>688</sub> -Val-Glu-Arg	84
Human pregnancy zone protein	Ala-Gly-Leu-Gly <sub>757</sub> ~Ile <sub>758</sub> -Ser-Ser-Thr	84
$\alpha_1$ -protease inhibitor	Gly-Ala-Met-Phe <sub>352</sub> ~Leu <sub>353</sub> -Glu-Ala-Ile	85
Human aggrecan	Ile-Pro-Glu-Asn <sub>341</sub> ~Phe <sub>342</sub> -Phe-Gly-Val	86
Human aggrecan	Thr-Glu-Gly-Glu <sub>373</sub> ~Ala <sub>374</sub> -Arg-Gly-Ser	86
Human cartilage link	Arg-Ala-Ile-His <sub>16</sub> ~Ile <sub>17</sub> -Gln-Ala-Glu	87
Human insulin-like growth factor binding protein-3	Leu-Arg-Ala-Tyr <sub>99</sub> ~Leu <sub>100</sub> -Leu-Pro-Ala	88
MMP-2		
Guinea pig $\alpha_1$ (I) gelatin	Gly-Ala-Hyp-Gly <sub>547</sub> ~Leu <sub>548</sub> -Glx-Gly-His	24
Rat $\alpha_1$ (I) gelatin	Gly-Pro-Gln-Gly <sub>190</sub> ~Val <sub>191</sub> -Arg-Gly-Glu	30
Rat $\alpha_1$ (I) gelatin	Gly-Pro-Ala-Gly <sub>277</sub> ~Val <sub>278</sub> -Gln-Gly-Pro	30
Rat $\alpha_1$ (I) gelatin	Gly-Pro-Ser-Gly <sub>301</sub> ~Leu <sub>302</sub> -Hyp-Gly-Pro	30
Rat $\alpha_1$ (I) gelatin	Gly-Pro-Ala-Gly <sub>331</sub> ~Glu <sub>332</sub> -Arg-Gly-Ser	30
Rat $\alpha_1$ (I) gelatin	Gly-Ala-Lys-Gly <sub>361</sub> ~Leu <sub>362</sub> -Thr-Gly-Ser	30
Rat $\alpha_1$ (I) gelatin	Gly-Pro-Ala-Gly <sub>382</sub> ~Gln <sub>383</sub> -Asp-Gly-Pro	30
Rat $\alpha_1$ (I) gelatin	Gly-Pro-Ala-Gly <sub>634</sub> ~Phe <sub>635</sub> -Ala-Gly-Pro	30
Rat $\alpha_1$ (I) gelatin	Gly-Pro-Ile-Gly <sub>676</sub> ~Asn <sub>677</sub> -Val-Gly-Ala	30
Rat $\alpha_1$ (I) gelatin	Gly-Pro-Hyl-Gly <sub>685</sub> ~Ser <sub>686</sub> -Arg-Gly-Ala	30
Bovine type 1 collagen ( $\alpha_1$ )	Gly-Pro-Gln-Gly <sub>775</sub> ~Ile <sub>776</sub> -Ala-Gly-Gln	22
Bovine type 1 collagen ( $\alpha_2$ )	Gly-Pro-Gln-Gly <sub>775</sub> ~Leu <sub>776</sub> -Leu-Gly-Ala	22
Human aggrecan	Ile-Pro-Glu-Asn <sub>341</sub> ~Phe <sub>342</sub> -Phe-Gly-Val	89
Human galectin-3	Pro-Pro-Gly-Ala <sub>62</sub> ~Tyr <sub>63</sub> -His-Gly-Ala	90
Human cartilage link	Arg-Ala-Ile-His <sub>16</sub> ~Ile <sub>17</sub> -Gln-Ala-Glu	87
Human cartilage link	Gly-Pro-His-Leu <sub>25</sub> ~Leu <sub>26</sub> -Val-Glu-Ala	87
Human insulin-like growth factor binding protein-3	Leu-Arg-Ala-Tyr <sub>99</sub> ~Leu <sub>100</sub> -Leu-Pro-Ala	88



## MMP-3

Human  $\alpha_2$ -macroglobulin  
 Human  $\alpha_2$ -macroglobulin  
 Human  $\alpha_1$ -antichymotrypsin  
 $\alpha_1$ -protease inhibitor  
 Antithrombin III  
 Chicken ovostatin  
 Human aggrecan  
 Substance P  
 Human ProMMP-1  
 Human ProMMP-3  
 Human ProMMP-3  
 Human ProMMP-8  
 Human ProMMP-9  
 Human ProMMP-9  
 Human fibronectin  
 Human insulin-like growth factor binding protein-3

Bovine  $\alpha 1$ (II) collagen, N-telopeptide  
 Bovine  $\alpha 1$ (II) collagen, N-telopeptide  
 Bovine  $\alpha 1$ (IX) collagen, NC2  
 Bovine  $\alpha 2$ (IX) collagen, NC2  
 Bovine  $\alpha 3$ (IX) collagen, NC2  
 Bovine  $\alpha 1$ (XI) collagen, N-telopeptide  
 Human cartilage link  
 Bovine insulin, B chain  
 Bovine insulin, B chain

## MMP-7

Human aggrecan  
 Human cartilage link  
 Human prourokinase

## MMP-9

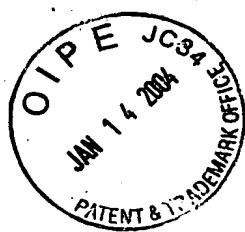
Human type V collagen ( $\alpha 1$ )  
 Human type V collagen ( $\alpha 2$ )  
 Human type XI collagen ( $\alpha 1$ )  
 Human aggrecan  
 Human galectin-3  
 Human cartilage link

## MMP-10

Human cartilage link  
 Human cartilage link

Gly-Pro-Glu-Gly <sub>679</sub> ~Leu <sub>680</sub> -Arg-Val-Gly	79
Arg-Val-Gly-Phe <sub>684</sub> ~Tyr <sub>685</sub> -Glu-Ser-Asp	79
Leu-Leu-Ser-Ala <sub>360</sub> ~Leu <sub>361</sub> -Val-Glu-Thr	91
Glu-Ala-Ile-Pro <sub>357</sub> ~Met <sub>358</sub> -Ser-Ile-Pro	91
Ile-Ala-Gly-Arg <sub>385</sub> ~Ser <sub>386</sub> -Leu-Asn-Pro	91
Leu-Asn-Ala-Gly <sub>677</sub> ~Phe <sub>678</sub> -Thr-Ala-Ser	79, 92
Ile-Pro-Glu-Asn <sub>341</sub> ~Phe <sub>342</sub> -Phe-Gly-Val	93
Lys-Pro-Gln-Gln <sub>6</sub> ~Phe <sub>7</sub> -Phe-Gly-Leu	37
Asp-Val-Ala-Gln <sub>80</sub> ~Phe <sub>81</sub> -Val-Leu-Thr	43
Asp-Thr-Leu-Glu <sub>68</sub> ~Val <sub>69</sub> -Met-Arg-Lys	94
Asp-Val-Gly-His <sub>82</sub> ~Phe <sub>83</sub> -Arg-Thr-Phe	94
Asp-Ser-Gly-Gly <sub>78</sub> ~Phe <sub>79</sub> -Met-Leu-Thr	95
Arg-Val-Ala-Glu <sub>40</sub> ~Met <sub>41</sub> -Arg-Gly-Glu	48
Asp-Leu-Gly-Arg <sub>87</sub> ~Phe <sub>88</sub> -Gln-Thr-Phe	48
Pro-Phe-Ser-Pro <sub>689</sub> ~Leu <sub>690</sub> -Val-Ala-Thr	21
Leu-Arg-Ala-Tyr <sub>99</sub> ~Leu <sub>100</sub> -Leu-Pro-Ala	88
Ala-Pro-Gly-Asn <sub>109</sub> ~Ala <sub>110</sub> -Ser-Glu-Ser	88
Phe-Ser-Ser-Glu <sub>176</sub> ~Ser <sub>177</sub> -Lys-Arg-Glu	88
Ala-Gly-Gly-Ala <sub>115</sub> ~Gln <sub>116</sub> -Met-Gly-Val	96
Gln-Met-Gly-Val <sub>119</sub> ~Met <sub>120</sub> -Gln-Gly-Pro	96
Met-Ala-Ala-Ser-Leu-Lys-Arg-Pro	96
~Ala-Lys-Arg-Glu	96
~Leu-Arg-Lys-Pro	96
Gln-Ala-Gln-Ala~Ile-Leu-Gln-Gln	96
Arg-Ala-Ile-His <sub>16</sub> ~Ile <sub>17</sub> -Gln-Ala-Glu	87
Leu-Val-Glu-Ala <sub>14</sub> ~Leu <sub>15</sub> -Tyr-Leu-Val	97
Glu-Ala-Leu-Tyr <sub>16</sub> ~Leu <sub>17</sub> -Val-Cys-Gly	21, 97
Ile-Pro-Glu-Asn <sub>341</sub> ~Phe <sub>342</sub> -Phe-Gly-Val	89
Gly-Pro-His-Leu <sub>25</sub> ~Leu <sub>26</sub> -Val-Glu-Ala	87
Pro-Pro-Glu <sub>143</sub> ~Leu <sub>144</sub> -Lys-Phe-Gln	98
Gly-Pro-Pro-Gly <sub>439</sub> ~Val <sub>440</sub> -Val-Gly-Pro	99
Gly-Pro-Pro-Gly <sub>445</sub> ~Leu <sub>446</sub> -Arg-Gly-Glu	99
Gly-Pro-Gly-Gly <sub>439</sub> ~Val <sub>440</sub> -Val-Gly-Pro	99
Ile-Pro-Glu-Asn <sub>341</sub> ~Phe <sub>342</sub> -Phe-Gly-Val	89
Pro-Pro-Gly-Ala <sub>62</sub> ~Tyr <sub>63</sub> -His-Gly-Ala	90
Arg-Ala-Ile-His <sub>16</sub> ~Ile <sub>17</sub> -Gln-Ala-Glu	87
Arg-Ala-Ile-His <sub>16</sub> ~Ile <sub>17</sub> -Gln-Ala-Glu	87
Gly-Pro-His-Leu <sub>25</sub> ~Leu <sub>26</sub> -Val-Glu-Ala	87

FIG. 4 CONT'D



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Appl. No. 09/756,283; Filed: January 9, 2001  
Dkt. No. 0623.1000000/LBB/PAJ; Group Art Unit: 1646  
Inventor(s): Chernajovsky *et al.*; Tel: 202/371-2600  
Title: Latent Fusion Protein

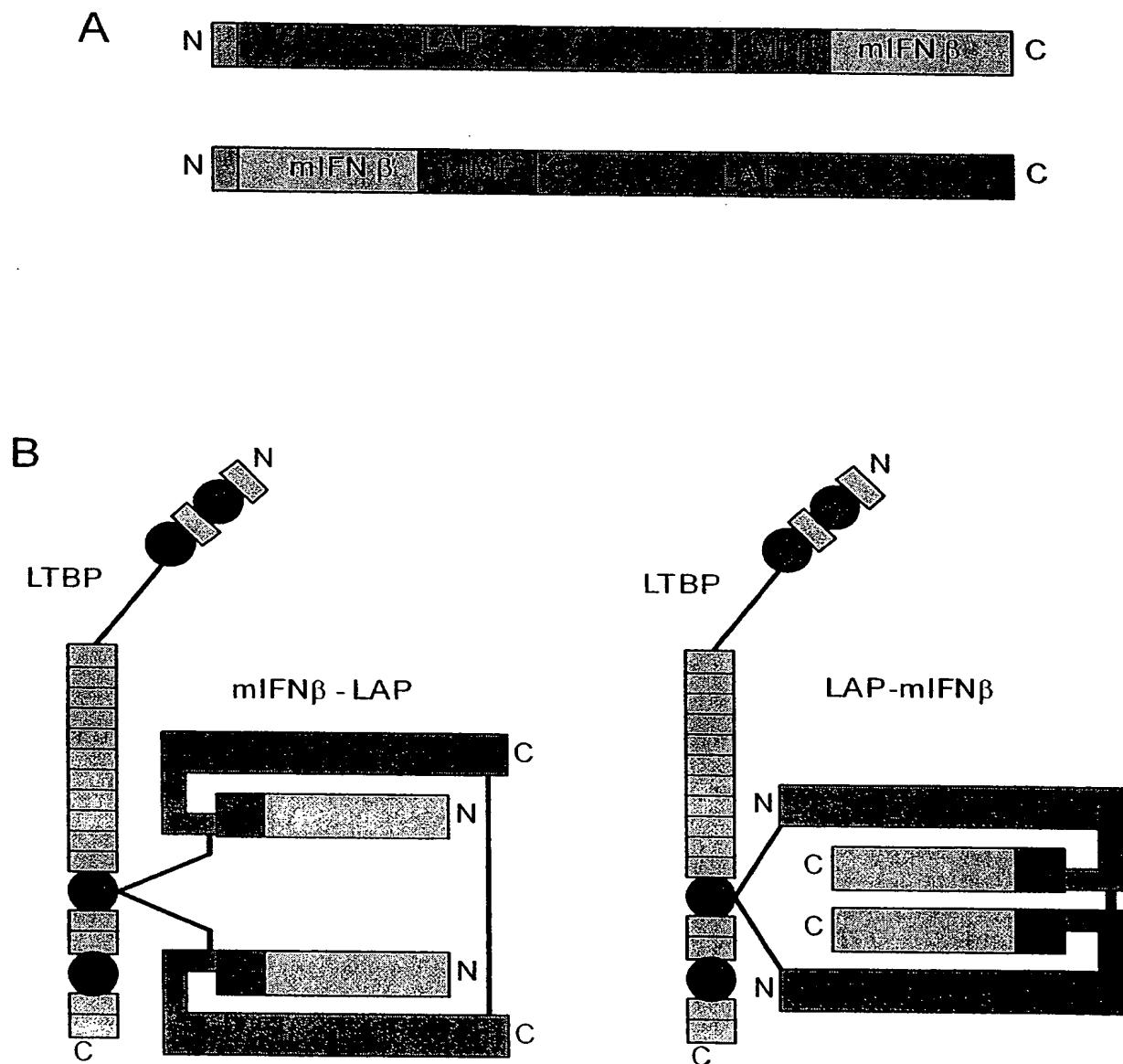
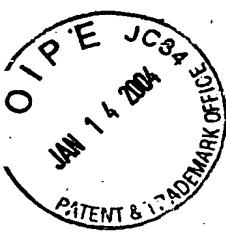


FIG. 5



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Appl. No. 09/756,283; Filed: January 9, 2001  
Dkt. No. 0623.1000000/LBB/PAJ; Group Art Unit: 1646  
Inventor(s): Chernajovsky *et al.*; Tel: 202/371-2600  
Title: Latent Fusion Protein

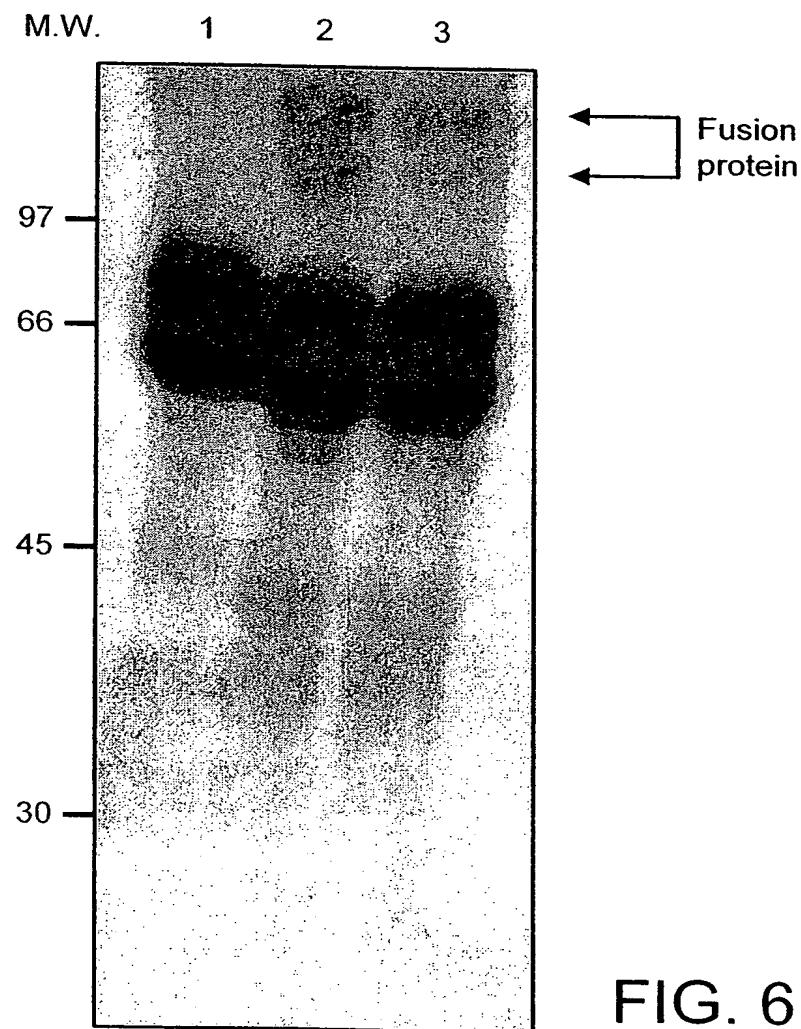
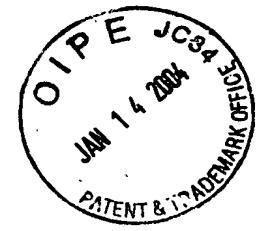


FIG. 6



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Appl. No. 09/756,283; Filed: January 9, 2001  
Dkt. No. 0623.100000/LBB/PAJ; Group Art Unit: 1646  
Inventor(s): Chernajovsky *et al.*; Tel: 202/371-2600  
Title: Latent Fusion Protein

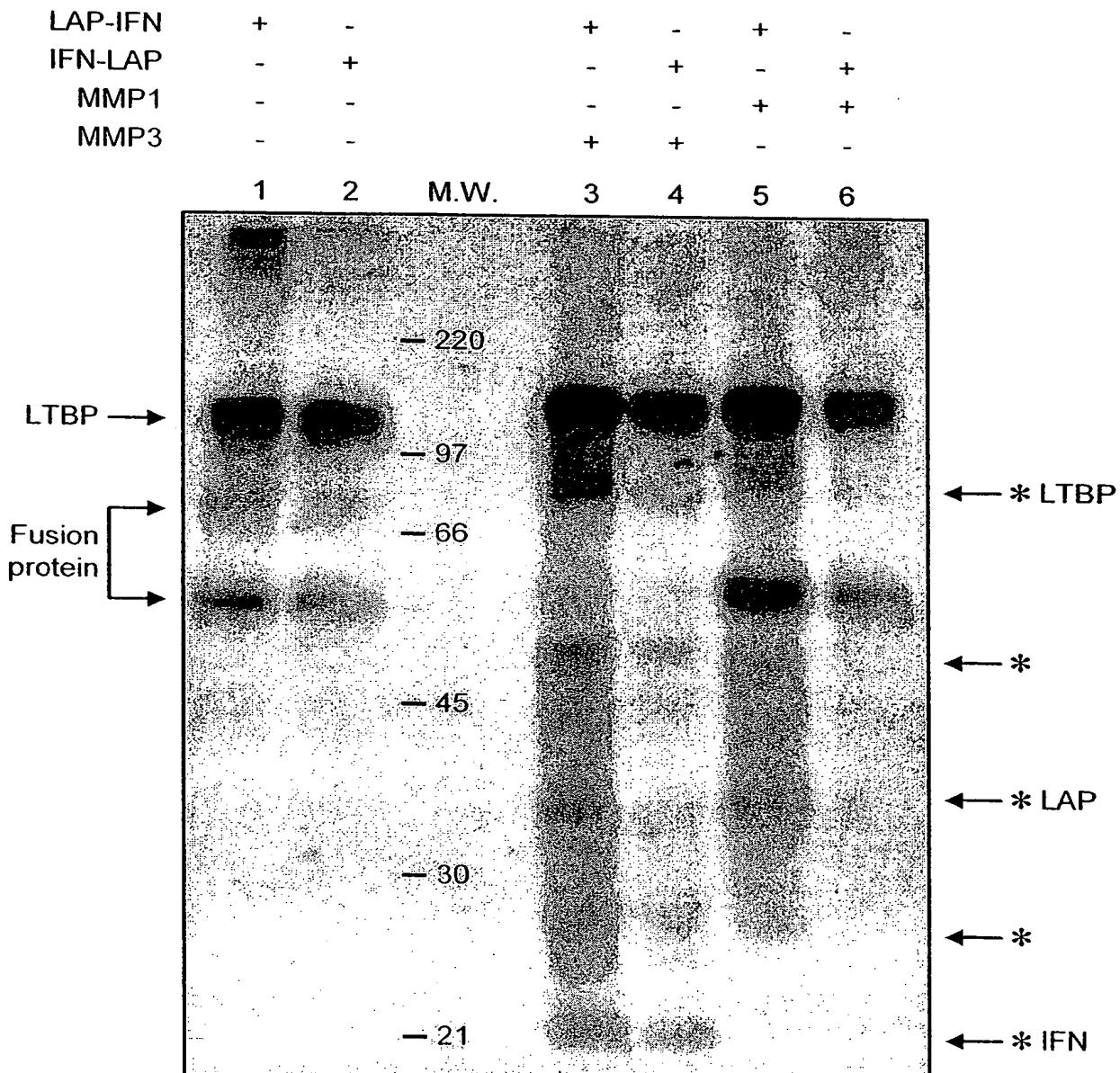
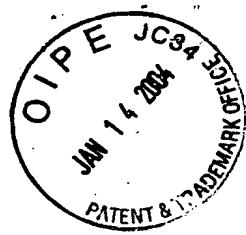


FIG. 7



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Appl. No. 09/756,283; Filed: January 9, 2001  
Dkt. No. 0623.1000000/LBB/PAJ; Group Art Unit: 1646  
Inventor(s): Chernajovsky *et al.*; Tel: 202/371-2600  
Title: Latent Fusion Protein

Anti-LAP

+ + + + - - - -

Anti-IFN

- - - - + + + +

MMP1

- + - - - + - -

MMP3

- - + - - - + -

SF

- - - + - - - +

M.W.

1 2 3 4 5 6 7 8

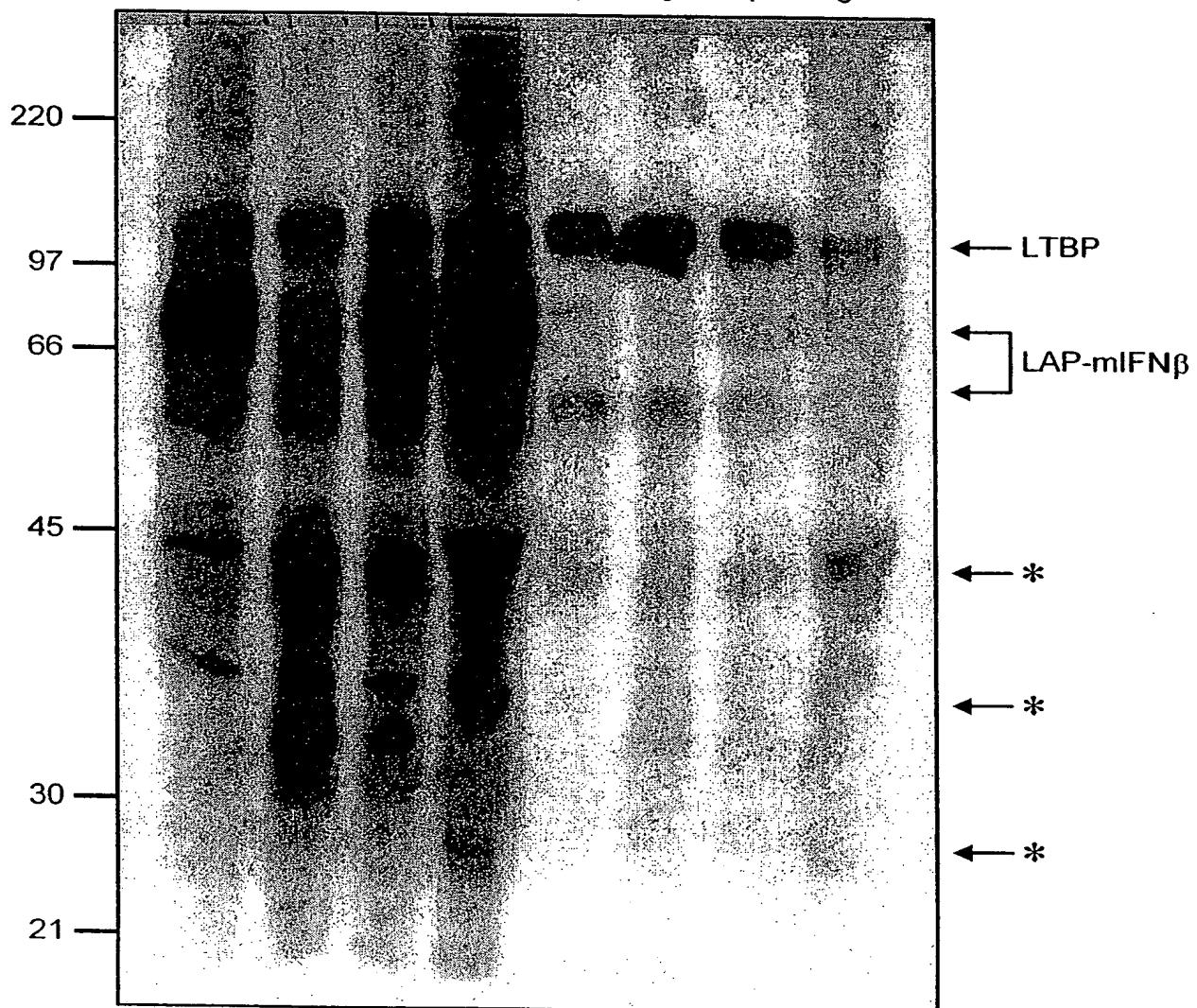


FIG. 8a



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Dkt. No. 0623.100000/LBB/PAJ; Group Art Unit: 1646  
Inventor(s): Chernajovsky *et al.*; Tel: 202/371-2600  
Title: Latent Fusion Protein

Anti-LAP	+	+	+	+	-	-	-	-
Anti-IFN	-	-	-	-	+	+	+	+
MMP1	-	+	-	-	-	+	-	-
MMP3	-	-	+	-	-	-	+	-
SF	-	-	-	+	-	-	-	+
M.W.	1	2	3	4	5	6	7	8

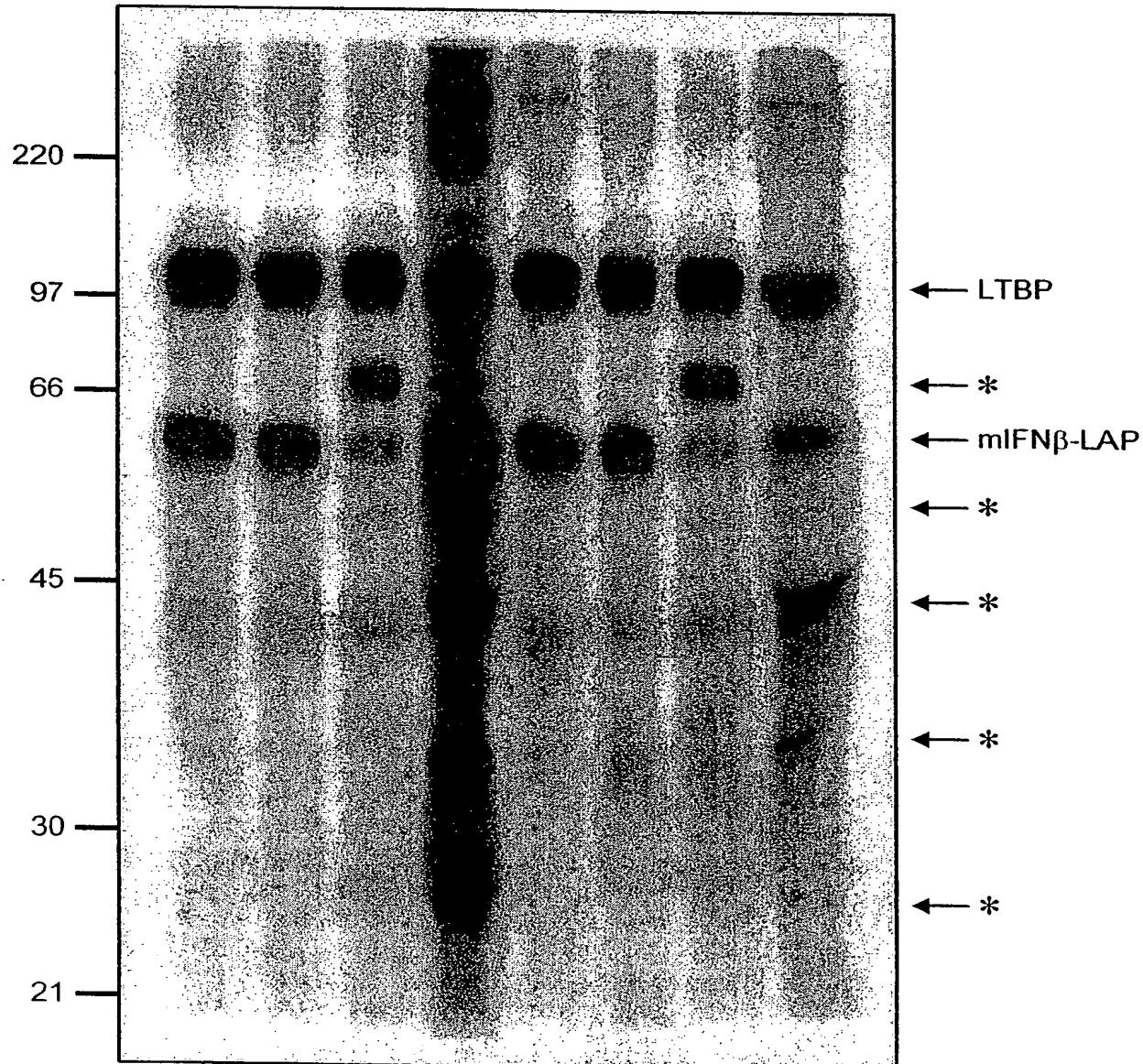


FIG. 8b

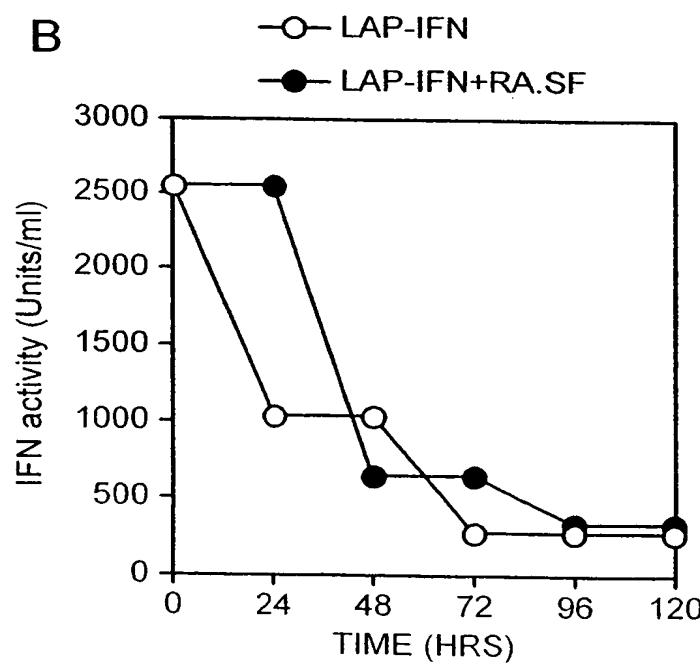
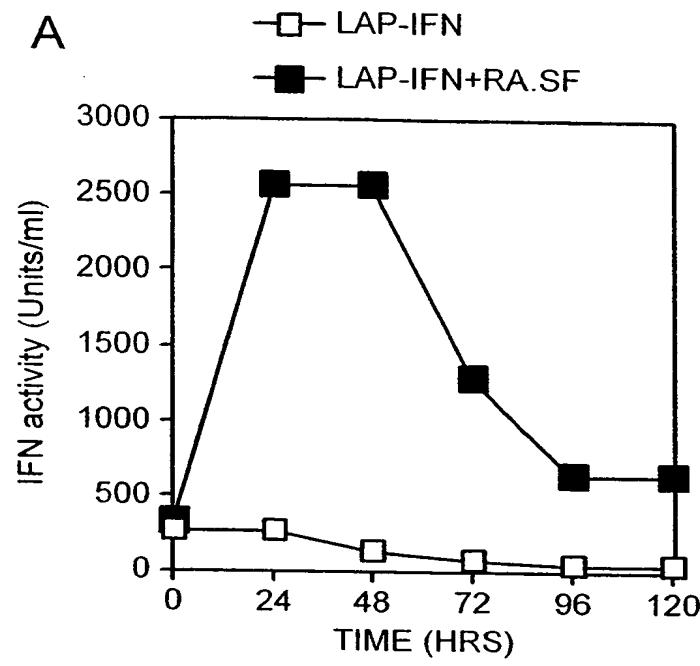


FIG. 9

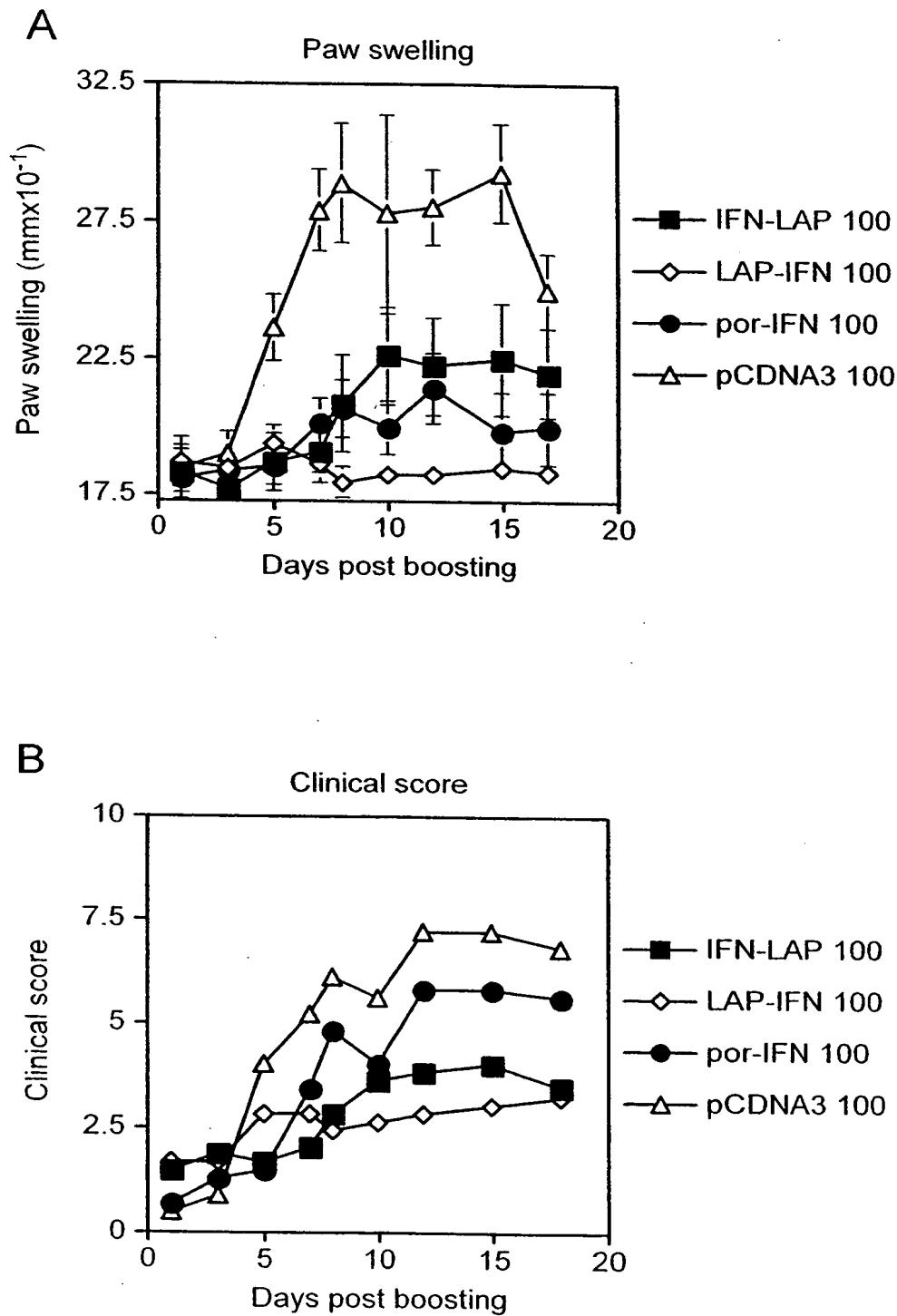


FIG. 10